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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/331,008	07/08/1999	ERIKO SHIMIZU		1123

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EXAMINER

HARRIS, TIA M

ART UNIT	PAPER NUMBER
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2615

11

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/331,008

Applicant(s)

SHIMIZU, ERIKO

Examiner

Tia M Harris

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

The applicant's amendments to the abstract have overcome the objections to the abstract.

Therefore, the objections are withdrawn.

The cancellation of claims 1-6 renders the objections to these claims moot.

Drawings

1. The drawings were received on 8/4/04 (Figure 6). These drawings are acceptable.

Response to Arguments

2. Applicant's arguments filed 12/23/03 have been fully considered but they are not persuasive. Applicant argues that Hoagland (5309241) does not disclose a fixed focus input image optical system having a function of compressing the circumferential part of the input image, nor a zoom image input method that enables a zooming without degrading the resolution, by including a fixed focus input image optical system. The examiner respectfully disagrees with this assessment of the reference. Hoagland teaches the anamorphic fiber optic taper (106) tapers the input image from the outside (circumferential part) to the inside and therefore does compress more largely as moves to the circumferential part (see figure 3). That is, most of the compression is performed on the outer, circumferential part, of the image rather than on the inner part of the image. Furthermore, it is well known in the art that changing the zoom of an image, particularly anamorphic zoom, equates to the changing of the aspect ratio of an input image. Therefore, the invention of Hoagland teaches a zooming function by changing of the aspect ratio of an image, and Hoagland does this without degrading the resolution of the image (col 3, line 67 – col 4, line 6).

Applicant further argues that Hoagland does not teach compressing the circumferential part of the input image to all directions. However, Hoagland explicitly teaches compressing the

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circumferential part in the horizontal and vertical directions, and when the horizontal and vertical compressions are performed, these compressions "combined" would result in diagonal compressions as well, thereby compressing the circumferential part of the input image to all directions.

It is noted that the Applicant appears to argue that the Applicant's invention differs from Hoagland by realizing the zoom function through data processing. However, claim 7 specifically recites that the "electronic zoom image input method" uses an "input image optical system having a function of compressing the input image..." A similar recitation is found in claim 8. The examiner relies on Hoagland for this feature and interprets the recited "electronic" to refer to the fact that the device itself, which includes the recited compressing, is electronic, as is the Hoagland device. There is no recitation in the claims of a data processing operation that performs an electronic zoom function.

The remaining references discussed by the applicant were cited in the previous office action as related art, but were not used in the rejection of the previous claims.

Claim Objections

3. Claim 7 is objected to because of the following informalities: the claim is a little confusing as written. Applicant is requested to more clearly claim the invention. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claims 7 and 8 recite the limitation "the fixed focus input image optical system" in line 2 of the claims. There is insufficient antecedent basis for this limitation in the claim. Claim 7 also recites "the image input device" in line 4 of the claim. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 12 recites the limitation "having attachment conversion lenses to change the focal length of the image input optical system" in lines 3-4 of the claim. It is not clear how a change in focal length is to be made to a "fixed focus input image optical system". Claim 12 appears to contradict claim 7.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 7, 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoagland.

(Claim 7) As best understood by the language of the claim, Hoagland discloses a zoom image input method that enables zooming without degrading the resolution by including a fixed focus input image optical system (106) having a function of compressing the input image more largely as it moves to the circumferential part, the image input device providing preferably uniform pixel density, and the zoom image converting and correcting system (see arguments above; also col 3, Lines 41-58, 66-68; col 4, Lines 1-6, 55-65; col 5, Lines 56-68; col 6, Lines 1-32).

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(**Claim 9**) Hoagland further discloses the compression of the circumferential part of the input image is limited to the vertical and horizontal direction (Col 4, Lines 55-65; Col 5, Lines 56-68; Col 6, Lines 1-32).

(**Claim 10**) Hoagland further discloses the image input device has a rectangular input image plane (see Fig 3) and the optical system compresses the circumferential part of the input image to all directions, and the neighboring part of the vertical and horizontal axes of the input image (see arguments above; also Col 4, Lines 55-65; Col 5, Lines 56-68; Col 6, Lines 1-32).

(**Claim 11**) Hoagland inherently discloses the optical system (106) is included as an attachment optical system in that optical taper assemblies are not integrated parts of regular lens units. They must be attached to the lens units.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoagland in view of Lemonier (4962429).

As best understood by the language of the claim, Hoagland discloses an electronic zoom image input method as discussed above, but does not specifically disclose compressing the circumferential part of the input image in logarithmic function.

Lemonier discloses a television camera having an increased resolution in a portion of the field of view wherein compression of the circumferential part of the input image is performed non-linearly according to anamorphic law (col 5, lines 20-40). Although Lemonier does not specifically state that the non-linear function is logarithmic, it would have been obvious, since a

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logarithmic function is a well-known non-linear function, to use a logarithmic function as one of the non-linear functions disclosed by Lemonier.

13. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoagland in view of Milgram et al (hereafter referred to as Milgram) (5175616).

Hoagland discloses an electronic zoom image input method as discussed above, but does not specifically disclose a 3D image input method whose right and left image input optical systems are organized by fixed focus input image optical systems of the method.

Milgram discloses a 3D imaging method using right and left cameras, each having an input optical system (see Figure 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made that it is well known in the art to implement a stereoscopic or 3D imaging method using left and right image input optical systems, in the manner taught by Milgram, in order to provide a 3D image.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tia M Harris whose telephone number is 703-305-4807. The examiner can normally be reached on M-F 8:30 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on 703-308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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8/22/04



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